

What is claimed is:

1. A method of forming a layer on a surface, said method comprising:

flowing a polymerizable composition between material between said surface and a mold in contact with said polymerizable composition by providing said polymerizable composition with a viscosity in a range 0.01 to 100 centipoise at 25° Celsius so that said polymerizable composition conforms to a shape of said mold;

solidifying said polymerizable composition, defining a solidified composition; and

increasing a distance between said solidified composition and said mold.

2. The method as recited in claim 1 wherein flowing further includes providing said polymerizable composition with a viscosity in a range of 1 to 5 centipoise, inclusive, at 25° Celsius.

3. The method as recited in claim 1 wherein flowing further includes applying said polymerizable composition to said surface and placing said mold proximate to said polymerizable fluid composition.

4. The method as recited in claim 1 wherein flowing further includes applying said polymerizable composition to said surface and pressing a side of said mold into said polymerizable fluid composition, with said side including a plurality of trenches, with solidifying further including providing said solidified material with a pattern complementary to a shape of said side.

5. The method as recited in claim 1 wherein flowing further includes applying said polymerizable composition to said surface and pressing a side of said mold into said polymerizable fluid composition, with said side including a plurality of trenches, and solidifying further includes providing said solidified material with a pattern complementary to a shape of said side and further including providing a substrate having a transfer layer disposed thereon, with said transfer layer defining said surface, and transferring said pattern into said transfer layer.

6. The method as recited in claim 5 further including transferring said pattern into said substrate.

7. A method of forming a layer on a surface, said method comprising:

placing a mold proximate to a surface with a polymerizable composition being disposed therebetween, said mold having a side with a plurality of trenches formed therein;

flowing said polymerizable composition between material between said surface and said mold to have said polymerizable composition fill said trenches conforming to a shape of said side by providing said polymerizable composition with a viscosity in a range 0.01 to 100 centipoise at 25° Celsius;

solidifying said polymerizable composition, defining a solidified composition having a solidified shape complementary to said shape of said side; and

increasing a distance between said solidified composition and said mold.

8. The method as recited in claim 7 wherein flowing further includes providing said polymerizable composition with a viscosity in a range of 1 to 5 centipoise, inclusive, at 25° Celsius.

9. The method as recited in claim 7 wherein flowing further includes applying said polymerizable composition to said surface and pressing said side into said polymerizable fluid composition.

10. The method as recited in claim 7 wherein flowing further includes applying said polymerizable composition to said surface and pressing said side of said mold into said polymerizable fluid composition, and further including providing a substrate having a transfer layer disposed thereon, with said transfer layer defining said surface, and transferring said pattern into said transfer layer.

11. The method as recited in claim 10 further including transferring said pattern into said substrate.

12. A composition, comprising:
a polymerizable material having a viscosity in a range of 0.01 to 100 centipoise at 25° Celsius.

13. The composition as recited in claim 12 wherein said polymerizable material has a viscosity in a range of 1 to 5 centipoise, inclusive, at 25° Celsius.

14. The composition as recited in claim 12 wherein said polymerizable material further includes organosilicons.

15. The composition as recited in claim 12 wherein said polymerizable material further includes silicon-containing material in an amount greater than about 8 to 10 percent by weight.

16. The composition as recited in claim 12 wherein said polymerizable composition further includes silicon-containing materials selected from a set of materials consisting essentially of silanes, silyl ethers, silyl esters, functionalized siloxanes, silsesquioxanes.

17. The composition as recited in claim 12 wherein said polymerizable material further includes components selected from a set consisting essentially of epoxy groups, ketene acetyl groups, acrylate groups and methacrylate groups.

18. The composition as recited in claim 12 wherein said polymerizable material further includes an initiator component to facilitate solidification of said polymerizable material in response to predetermined radiation.